# Bandit 240 PB Installation and User Guide

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Bandit Solutions, Inc.

Distributed by:
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## Safety symbols

The following symbols are used in this installation guide to indicate possibly hazardous conditions.

**Electrical Hazard**—Failure to observe the danger notice may result in electrical shock, severe bodily injury, or death.

**Caution**—Failure to observe the caution notice may cause injury or significantly disrupt or impair operation of Bandit 240 PB.

### *Unpacking instructions*

Before installing Bandit 240 PB, open the shipping box and verify you have received the following items:

- Bandit 240 PB
- Hypak-3
- Allen wrench
- Bandit software disk
- Optional hardware you may have ordered, such as mounting kits

## Compliance

Bandit 240 PB complies with the following standard for safety and operation: International Standard IEC 839-1-3 “Alarm Systems, General Requirements, Environmental Testing”

## Environmental Safety

Bandit’s fog is harmless to adults. Nevertheless, people with the following conditions may experience a reaction to Bandit’s fog:

- Claustrophobics
- People with strong reactions to stressful situations
- Asthmatics

Material data safety sheets are available upon request.

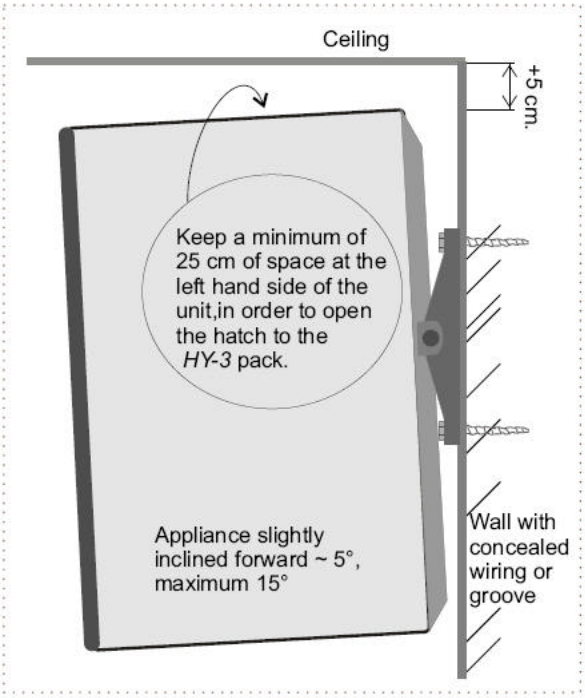
# Installation

## *Mounting*

### Site selection

Select a site for mounting Bandit 240 PB with the following characteristics:

- Ambient temperate between 32–122ºF. Avoid locations close to heat sources such as radiators and stoves.
- Clearance from walls and ceiling as indicated in the following diagram. This ensures enough room for heat dissipation and routine maintenance.


Ceiling
+5 cm.
Keep a minimum of 25 cm of space at the left hand side of the unit,in order to open the hatch to the HY-3 pack.
Appliance slightly inclined forward ~ 5°, maximum 15°
Wall with concealed wiring or groove

- For wall mounting, a 5º–15º inclination from vertical.
- Mount in a location away from rain or moisture.
- Mount on a wall, shelf, or floor that can support 62 lbs.

### Site Selection

- Position Bandit 240 PB such that the ejection nozzle points in the direction where intruders may enter, or in the area storing the objects you want to protect.

- Avoid pointing the nozzle to an air circulation point, such as an open window, a window that may be broken during a burglary, or a large circulation vent; in such cases the nozzle may eject the fog directly outside of the protected area.
- Point the nozzle towards a wall to break the ejection pressure and allow the fog to accumulate into a thick cloud.
- Avoid positioning the nozzle directly above an exit. This may prevent the intruder or by-standers from leaving the protected area after an ejection.
- Avoid positioning the nozzle away from fragile objects; the force of the ejection can topple or damage unprotected items.
- Position the nozzle such that the first surface to block the ejection is 20 feet (6 meters) away.
- When installing multiple nozzles, position the nozzles so they expel fog in a manner that avoids double-clouding of the same area. Suggested points are diagonally opposite corners of a room.

## Site Preparation

- Heat from Bandit's fog ejection may trigger PIRs. Replace PIRs with combination PIR-radar sensors that are triggered by both heat and movement; this reduces the chances of a false alarm during fog ejection.
- Mount a motion sensor in a location that assures an intruder is detected before approaching Bandit.

## Required tools

To install Bandit 240 PB you need the following tools:

- Drill and standard set of drill bits
- Bandit Allen wrench (included in shipping box)
- Wire strippers
- Screwdrivers
- Voltage testers
- PC communications link (optional, available from Bandit Solutions, Inc.)

You may need additional hardware depending on how you install Bandit.

## Mounting procedure—wall

1. Select a mounting location. Be sure the location you select complies with the requirements listed in the section "Site selection" on page 3.
2. If you ordered the optional Handy-Boy jig, place Bandit 240 PB on the jig.
3. Connect power wires to Bandit.
4. Mark and drill holes to ½" depth.
5. Attach the mounting plate using screws.
6. Position and secure Bandit on the mounting plate.

Proceed to "Electrical Connection" on page 6.

## Mounting procedure—floor

1. Select a mounting location. Be sure the location you select complies with the requirements listed in the section "Site selection" on page 3.
2. If you ordered the optional Handy-Boy jig, place Bandit 240 PB on the jig.
3. Connect power wires to Bandit.
4. On the floor, mark and drill holes to ½" depth.
5. Attach the mounting plate using screws.
6. Position and secure Bandit on the mounting plate.

Proceed to "Electrical Connection" on page 6.

## Mounting procedure—concealed location

1. Select a mounting location. Be sure the location you select complies with the requirements listed in the section "Site selection" on page 3. In particular, ensure you have enough ventilation to allow heat dissipation.
2. If you ordered the optional Handy-Boy jig, place Bandit 240 PB on the jig.
3. Connect power wires to Bandit.
4. On the floor or wall, mark the location of Bandit.
5. On the door concealing Bandit, mark and drill a hole with 2" diameter.
6. On the mounting surface, mark and drill holes to ½" depth.

7. Attach the mounting plate using screws

8. Position and secure Bandit on the mounting plate.

9. If you ordered the optional extended ejection nozzle, attach it to Bandit through the 2" hole.

Proceed to "Electrical Connection."

## *Electrical Connection*

**Caution**—Installation of Bandit 240 PB requires a 110 VAC power source and a dedicated ground. Be sure you follow all local safety requirements and building codes when installing Bandit.

Refer to Figure 1 when making electrical connections.

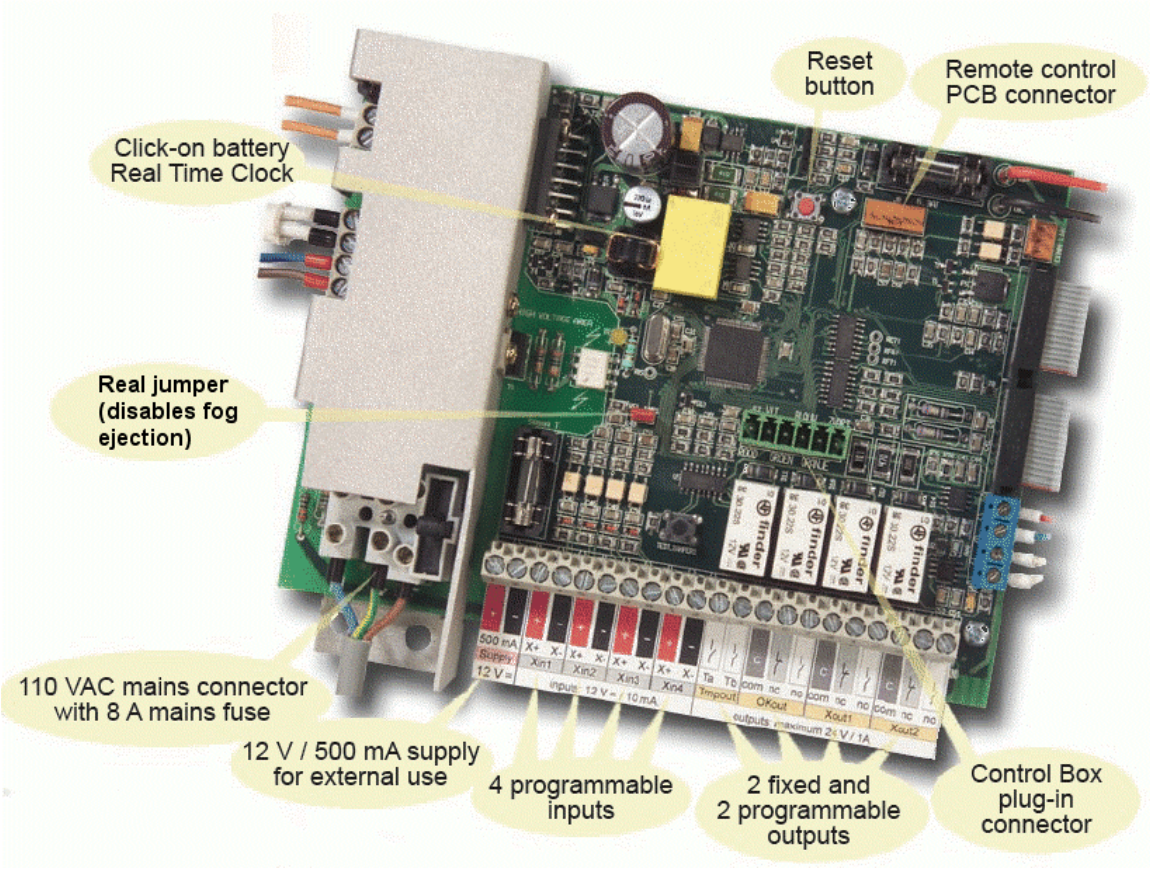

Reset button
Remote control PCB connector
Click-on battery Real Time Clock
Real jumper (disables fog ejection)
110 VAC mains connector with 8 A mains fuse
12 V / 500 mA supply for external use
4 programmable inputs
2 fixed and 2 programmable outputs
Control Box plug-in connector

**Figure 1 - Bandit 240 PB PCB**

1. Remove the real jumper to disarm fog ejection.

2. Remove power from electrical line to be connected to Bandit 240 PB.

3. Open the rear cover on Bandit.
4. Locate the 3-way terminal block for 110 VAC power.
5. Connect power leads as follows: Red to N, black to L, and ground to ground.
6. Route power cable through strain relief.
7. Reapply power to electrical line.
8. With a volt meter, test power at N and L terminals. Verify power is 110 VAC.
9. Replace the real jumper.

### *Connecting Accessories*

You can install accessories to Bandit 240 PB that require 12 VDC power. Examples of accessories include the Jumbo LED or an external siren.

1. Mount the accessory.
2. Connect the red wire to the +12V power supply, and the white wire to Grdout (See Figure 1).
3. If required, connect the blue and black wires to the Ta and Tb sabotage loop.

## LEDs

The following table lists the LEDs on Bandit's front cover and their corresponding indications.

| **LED** | | **Indication** |
|---|---|---|
| OK | Solid green | Bandit is operational. |
| | Blinking green | Bandit is warming up; up to 50 minutes are required for warm up after cold start. |
| Guard | Solid red | Bandit in guard mode. |
| Alarm | Solid red | Bandit in alarm mode. |
| | Blinking red | Bandit in panic mode. |
| Failure | Slow blinking red | Internal failure detected. |
| | Fast blinking red | Technical adjustment required. Possible causes include control box is switched on, wrong type of HY-3 pack installed, real jumper not plugged in (see Figure 1). |
| HY-3 | Blinking red | Less than 15 seconds of fog ejection time remaining in canister. Replace or refill canister. |

| LED | | Indication |
|---|---|---|
| Power | Blinking red | Power supply disconnected or main fuse blown *and* Bandit not in guard mode. |

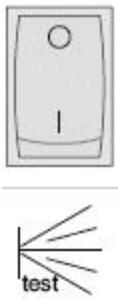
The following table lists the conditions of the green LED on the HY-3 Pak sleeve.

| | |
|---|---|
| Solid green | Canister installed properly and armed. |
| Blinking green | Canister not installed correctly or wrong canister installed. Replace canister. |
| Fast blinking green | Low fluid in canister. Replace canister. |
| Green off | Communication failure. Clean electrical contacts, replace canister, or contact Technical Support. |

# Maintenance

## *Testing fog ejection*

Perform a fog ejection test once a year. To perform the test, push the test button on the Control Box (see figure to right).




**Caution**— Notify all persons in test area about the test, as well as local fire safety personnel.

**Caution**— Nobody in the immediate vicinity of the nozzles or in the direct path of ejection.

**Caution**— During ejection do not look in the direction of the nozzle closer than 26 feet.

## *Replacing HY-3 Pack*

1. If installed, disarm the sabotage loop through the Control Box.

2. Unscrew the two Allen bolts on the side hatch. Remove the side hatch (see figure to right).

3. Unscrew the Allen bolts on the old HY-3 Pack and remove the canister assembly.

4. Unscrew the red Allen bolts on the canister assembly and remove the old canister.
5. Insert the new canister into the canister assembly and tighten Allen bolts.
6. Insert canister assembly into Bandit 240 PB and tighten Allen bolts.
7. Replace side hatch.

### *Periodic maintenance*

- Clean air filter on front with a vacuum cleaner and a soft brush attachment. Clean every six months or more frequently in dusty environments.
- Wipe dust from case every six months with a clean, damp cloth. Do not use volatile fluids such as alcohol, thinner, or gasoline.
- Ensure no objects, such as boxes or filing cabinets, block the fog ejection path.

## Specifications

| **Characteristic** | **Value** |
|---|---|
| Dimensions | 10.6" wide × 14.4" high × 10" deep |
| Weight | 62 pounds |
| Max. mains supply failure | + 2 hours |
| Maximum reaction time | 1 second between alarm signal and fog ejection |
| Fog ejection image | Cone shaped straight ahead |
| Fog ejection capacity | About 1,000 $ft^3$ per second |
| Fog ejection pressure | 232 $lbf/in^2$ (pound force per square inch) |
| Maximum fog ejection per pulse | 18 seconds |
| Total fog ejection period | 50 seconds |
| Nominal ejected droplet size | 0.000001312 ft (full aerosol) |
| Warm-up time | 50 minutes in cold settings |
| Max environmental temp. | 122°F |
| Min. environmental temp. | 32°F |
| Maximum heat loss | 40W per hour |
| Heat exchange capacity | 18,000W per hour |
| Capacity heating element | 750W |
| Heating | Cartridge resistance (long-life Kanthal) |
| Temperature sensor | Platinum Pt1000 (stainless - long life) |
| Over temperature secured | Temperature fuse |
| Construction material | Stainless and galvanized steel |

## Troubleshooting and Technical Support

Leave all repairs to authorized persons and/or the manufacturer.

For technical support, contact your distributor:
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